



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 5  
 77 West Jackson Boulevard  
 CHICAGO, IL 60604

**DATE:**

**SUBJECT:** Review of Feedstream Analysis Plan from Veolia ES  
 Technical Solutions, LLC, Sauget, Illinois

**FROM:** Charles Hall, Environmental Engineer  
 MN/OH Air Enforcement and Compliance Assurance Section  
 Air Enforcement and Compliance Assurance Branch

**TO:** Jane D. Woolums, Associate Regional Counsel  
 Office of Regional Counsel

Genevieve Damico, Environmental Engineer  
 Air Permits Section  
 Air Programs Branch

**THROUGH:** William MacDowell, Chief  
 MN/OH Air Enforcement and Compliance Assurance Section

This memorandum reviews the Feedstream Analysis Plan (FAP) that Veolia ES Technical Solutions, LLC (Veolia) provided to EPA on September 20, 2010, and offers an opinion on the FAP's sufficiency to document compliance with the applicable ash, chlorine, mercury, semivolatile metal (SVM, i.e., cadmium and lead), and low volatile metal (LVM, i.e., arsenic, beryllium, and chromium) feed rate limits.

### **Regulatory Background**

Pursuant to 40 C.F.R. § 63.1209(c)(1) of the National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 C.F.R. Part 63, Subpart EEE (the HWC MACT), prior to feeding a waste stream to any of its three hazardous waste incinerators, Veolia must obtain an analysis of the waste stream that is sufficient to document compliance with the applicable feed rate limits provided by this section. Pursuant to 40 C.F.R. §§ 63.1209(l)(1), 63.1209(m)(3), 63.1209(n)(2), and 63.1209(o)(1), Veolia must establish and comply with feed rate operating parameter limits for mercury, ash, SVM, LVM, and chlorine.

40 C.F.R. § 63.1209(c)(2)(vi) sets forth:



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40 C.F.R. § 63.1209(c)(2)(vi) sets forth:

(2) Feedstream analysis plan. You must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum:

(vi) The frequency with which you will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

## Discussion

In a very literal sense, Veolia included in its FAP all of the information required by 40 C.F.R. § 63.1209(c)(2) and (4).<sup>1</sup> However, I cannot reasonably conclude that Veolia's FAP is "sufficient to document compliance with the applicable feed rate limits" in 40 C.F.R. §§ 63.1209(l)(1)(i), 63.1209(m)(3), 63.1209(n)(2)(ii), and 63.1209(o)(1)(i).

Veolia receives hazardous and nonhazardous wastes from several thousand off-site generators. For each waste stream, Veolia does not control the raw materials that go into the process and, thus, does not control the waste that comes out of the process. I assume that the concentrations of ash, chlorine, mercury, SVM, and LVM in each hazardous waste stream vary over a range.

For 40 C.F.R. § 63.1209(c)(2)(vi), Veolia stated:

### 6.0 Frequency of Analysis

In 40 C.F.R. 63.1209(c)(2)(vi) of the HWC MACT Standard, a facility is required to identify the frequency with which an initial analysis is repeated or reviewed to ensure that it is current. This FAP will require that the analytical information for the feedstreams be re-evaluated on a frequency consistent with that described for all wastes as described in Section 4.1.3 of the facility's [Waste Analysis Plan (WAP)]. The three events that may trigger a need to update or evaluate the analysis of a given feedstream are:

- 1) Generator notifies Veolia that a feedstream has changed
- 2) Subsequent analysis for a feedstream used by Veolia is inconsistent with the original analysis
- 3) Five years have passed since the last assessment of the feedstream

In order for a feedstream to be considered acceptable again for incineration after one of these events has occurred, the evaluation process as described in this FAP must be

<sup>1</sup> 40 C.F.R. § 63.1209(c)(3) requires Veolia to submit the FAP to EPA for review and approval, if requested.

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<sup>1</sup> 40 C.F.R. § 63.1209(c)(3) requires Veolia to submit the FAP to EPA for review and approval, if requested.

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Regardless of which came first, WAP Section 4.1.3 and FAP Section 6.0 closely mirror each other. In Section 5.1 of its WAP, Veolia states:

After the inspection, ten percent of the containers from each waste profile within a shipment which are similar will be sampled, according to Section 2.0. In the event that a single drum of a specific waste profile is received, or single drums within a profile or not similar, those individual drums will be sampled.

However, neither Veolia's FAP nor its WAP explain how many samples it must collect and analyze for each shipment of a hazardous waste to verify that the concentrations are within the expected range. Sampling 10 percent of the containers is something of a tradition in hazardous waste treatment, storage, and disposal, but I have never seen a justification for it. If Veolia receives a waste stream from a generator frequently and in large quantities, sampling 10 percent of the containers may be not only sufficient but excessive (in terms of the number of samples that it needs to analyze to verify that any particular shipment) is within the expected range. On the other end of the spectrum, if Veolia receives a waste stream from a generator infrequently and in small quantities, sampling 10 percent of the containers may be completely insufficient.

And that is the end of the spectrum where a waste stream at Veolia is more likely to be. Doug Harris, General Manager, has described Veolia's Sauget, Illinois, facility, to me as a niche incineration operation. In other words, the hazardous waste incinerators at the facility burn a lot of relatively small quantities. The combined capacity of the three hazardous waste incinerators at Veolia's Sauget facility is smaller than any other commercial hazardous waste incinerator in the United States.<sup>2</sup>

EPA's *RCRA Waste Sampling, Draft Technical Guidance, Planning, Implementation, and Assessment* recognized that "the type, quantity, and quality of data needed should be specified on a site specific basis, such as in the waste analysis plan of a permitted facility."<sup>3</sup> I assume that EPA has made similar

<sup>2</sup> "Commercial hazardous waste incinerator" is not defined in the HWC MACT. I use the term to refer to HWIs that receive waste from off-site and burn hazardous waste for a fee.

<sup>3</sup> *RCRA Waste Sampling, Draft Technical Guidance, Planning, Implementation, and Assessment*; U.S. Environmental Protection Agency. Office of Solid Waste and Emergency Response. Washington, D.C., 2002; EPA 530-D-02-002, p. 6.

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statements in other Waste Analysis Plan guidance documents. EPA recognizes that a "one size fits all" approach to waste analysis plans would not fit anyone, and that each waste analysis plan has to be tailored to the specific site and to the waste streams and quantities that it treats, stores, and disposes.

Before a waste stream arrives at the front gate, Veolia should already know whether the waste is hazardous or nonhazardous. EPA needs to know that the FAP verifies whether the concentrations of ash, chlorine, mercury, SVM, and LVM are no higher than the highest concentration range on the Waste Profile Sheet. Currently, the FAP asks us to accept sampling 10 percent of the containers without justification. Because Veolia does not control the processes that the waste streams that come to its facility, does not control the raw materials that go into those processes, and receives several thousand waste streams, I cannot reasonably conclude that Veolia's FAP is sufficient to document compliance with the ash, chlorine, mercury, SVM, and LVM feed rate operating parameter limits set forth in 40 C.F.R. §§ 63.1209(l)(1), 63.1209(m)(3), 63.1209(n)(2), and 63.1209(o)(1).

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